

Amdt. dated April 11, 2006
Reply to Office action of January 11, 2006

Serial No. 10/003,952
Docket No. SVL920010017US1
Firm No. 0054,0018

REMARKS/ARGUMENTS

Typographical errors have been corrected in the claims

Typographical errors have been corrected in claims 48 and 49.

Claim rejections under 35 U.S.C. 102 and 35 U.S.C. 103

The Examiner has rejected claims 5-8, 10-14, 25-28, 30-34, 45-48, 50-54, 61, 63-70, 72-79 and 81-87 under 35 U.S.C. 102(b) as being anticipated by Baldwin (US 5,452,449). The Examiner has rejected claims 15, 35, 55, 62, 71, and 80 under 35 U.S.C. 103(a) as being unpatentable over Baldwin in view of Melahn (US 6,003,042). Applicants traverse the Examiner's rejection of the claims and also traverse the objections to claims 9, 29, 49 which have been indicated as including allowable subject matter.

Independent claims 5, 25, 45

Independent claim 5 is a method for performing an impact analysis of program statements in a source code file that is one of a plurality of source code files, wherein each program statement has at least one of an input parameter and output parameter, comprising:

receiving selection of at least one program statement in one source code file; and
for each selected program statement, determining program statements throughout the source code files having as one input parameter one program artifact that is affected by the selected program statement.

The Examiner has rejected claim 5 under 35 U.S.C. 102 as being unpatentable over the cited Baldwin (abstract; col. 4, lines 9-10; col. 3, lines 55-60; col. 4, lines 10-29, 42-44; col. 4, line 54 - col. 5, line 55). Applicants traverse.

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The Examiner has indicated (on page 2 of the Office Action dated 1/11/2006) that col. 4, lines 42-44 of the cited Baldwin discloses the claim requirement that each program statement has at least one of an input parameter and output parameter. Col. 4, lines 42-44 of the cited Baldwin discusses that the system of the cited Baldwin can "determine all modules that a call-parameter is passed to from a given module and what the matching entry-parameters are named". Therefore, the cited Baldwin is discussing the call parameters of a module, whereas the claim requirements are for an input parameter and output parameter of each program statement. A module of the cited Baldwin is different from the program statement of the claim requirements. The cited Baldwin discusses passing parameters between modules, whereas the claims require input parameter and output parameter for each program statement. Therefore, the Examiner cited col. 4, lines 42-44 of the cited Baldwin does not teach or disclose the claim requirement that each program statement has at least one of an input parameter and output parameter.

The Examiner has further indicated that the global module selection discussed in col. 4, lines 10-29 of the cited Baldwin discloses the claim requirement of receiving selection of at least one program statement in one source code file. The global module selection of the cited Baldwin is discussing modules and not the claim requirement of a program statement because the claim requirement of a program statement is different from a module. Therefore the Examiner cited col. 4, lines 10-29 of the cited Baldwin does not teach or disclose the claim requirement of receiving selection of at least one program statement in one source code file. Should the Examiner maintain the rejection of the claims the Examiner is requested to indicate which element of the cited Baldwin corresponds to the claim requirement of the at least one program statement.

The Examiner has further indicated that the "process analysis" and "impact analysis" items of col. 4, line 54 - col. 5, line 55 of the cited Baldwin discloses the claim requirement that for each selected program statement, determining program statements throughout the source code files having as one input parameter one program artifact that is affected by the selected program statement. The process analysis discussed in the cited Baldwin is with reference to modules and

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does not disclose the claim requirement of the program statement. The impact analysis discussed in the cited Baldwin allows the programmer/analyst to determine all the modules and data elements that may be impacted by a maintenance change or enhancement and perform the following (cited Baldwin: col. 5, lines 42-55):

- "1) determine where, within selected modules, a key- word string or strings is located, as well as to be able to immediately select those keywords for further analysis;
- 2) search source code database information, including remarks, comments and procedural source code for keywords or keyword strings that might help with the analysis of a particular problem;
- 3) determine all modules that are impacted by a change to a copy library member; and
- 4) determine such analysis as which modules in a system issue a specific user abnormal end (abend) code by using keyword search capability."

Therefore the cited Baldwin discusses determining a word string or strings in modules, and search the source code for keywords or keywords for strings that might help with the analysis of a particular problem. Therefore, the cited Baldwin discusses searching source code for keywords or keyword strings. It appears as if the Examiner may be interpreting a source code of the cited Baldwin as the claim requirement of a program statement. While the cited Baldwin searches source code for keywords or keyword strings, the claims require that for each selected program statement, determining program statements throughout the source code files having as one input parameter one program artifact that is affected by the selected program statement. Thus the cited Baldwin searches source code for keywords which is different from the claim requirement of determining program statements throughout the source code files having as one input parameter one program artifact that is affected by the selected program statement.

For the above reasons claim 5 is patentable over the cited art. Claims 25 and 45 have been rejected for reasons similar to the rejection of claim 5, and claims 25, and 45 are patentable for reasons similar to the patentability of claim 5.

For the above reasons claims 5, 25, and 45 are patentable over the cited art.

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Dependent Claims 6-15, 26-35, 46-55, 61-87

The Examiner has also either rejected or objected to pending claims 6-15, 26-35, 46-55, 61-87. These claims are patentable over the cited art because they depend directly or indirectly on independent claims 5, 25, and 45 which are patentable over the cited art for the reasons discussed above. Furthermore, the following of these claims provide additional grounds of patentability over the cited art for the reasons discussed below.

Dependent Claims 6, 26, 46

Claim 6 depends on claim 5, wherein the source code files including the program artifacts affected by the selected program statement comprise components of an application program.

The Examiner has rejected claim 6 under 35 U.S.C. 102 as being unpatentable over the cited Baldwin. Applicants traverse.

The cited col. 3, lines 49-52 of the cited Baldwin discusses program modules that form a application program. It appears that the Examiner is interpreting the program modules of the cited Baldwin as the source code files of claim requirements. Nowhere does the cited Baldwin teach or disclose the claim requirement that source code files includes the program artifacts affected by the selected program statement. Should the Examiner maintain the rejection, the Examiner is requested to indicate which element of the cited Baldwin corresponds to the selected program statement of the claim requirements and which element of the cited Baldwin corresponds to the program artifacts.

For the above reasons claim 6, and similarly claims 26, and 46 are patentable over the cited art.

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Dependent Claims 7, 27, 47

Claim 7 depends on claim 5, wherein determining the program statements having as one input parameter one program artifact affected by the selected program statement further comprises:

determining program statements in the source code files having as one input parameter the program artifact that is one output parameter to the selected program statement.

The Examiner has rejected claim 7 under 35 U.S.C. 102 as being unpatentable over the cited Baldwin. Applicants traverse.

The cited Baldwin (col. 5, lines 3-8) discusses match the call and entry-parameters between any calling module and called module, and in particular discusses how to expand the subelements of any parameter, and determine for any subelement of any parameter, how that subelement is referenced, used, set, called or how it calls other subelements.

The cited Baldwin is discussing input parameters and output parameters for calling and called modules, whereas the claims require input and output parameters for program statements. The program statements of the claim requirements are different from the modules of the cited Baldwin.

For the above reasons claim 7, and similarly claims 27, and 47 are patentable over the cited art.

Dependent Claims 8, 28, 48

Claim 8 depends on claim 7, wherein determining the program statements having as one input parameter one program artifact affected by the selected program statement further comprises:

for each previously determined program statement having as one input parameter one program artifact affected by the selected program statement, performing the steps of:

(1) determining the output parameter program artifact of the statement; and

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(ii) determining program statements in the source code files having as one input parameter the program artifact that is the output parameter of the previously determined statement.

The Examiner has rejected claim 8 under 35 U.S.C. 102 as being unpatentable over the cited Baldwin. Applicants traverse.

The cited Baldwin col. 5, lines 4-25 discusses calls between modules and parameters of modules. Nowhere does the cited Baldwin teach or disclose the claim requirements of program statements and input and output parameter program artifacts of the program statement. The program statement of the claim requirements is different from the modules of the cited Baldwin.

Additionally, the cited Baldwin does not teach or disclose the claim requirement that for each previously determined program statement having as one input parameter one program artifact affected by the selected program statement, performing the steps of determining the output parameter program artifact and determining program statements in the source code files having as one input parameter the program artifact that is the output parameter of the previously determined statement. In particular there is no teaching or disclosure in the cited Baldwin of the claim requirement that for each previously determined program statement the steps

(i) determining the output parameter program artifact of the statement; and
(ii) determining program statements in the source code files having as one input parameter the program artifact that is the output parameter of the previously determined statement, are performed.

For the above reasons claim 8, and similarly claims 28, and 48 are patentable over the cited art.

Dependent claims 9, 29, 49

The Examiner for indicated that claims 9, 29, 49 include allowable subject matter. Applicants submit the claims 9, 29, 49 are patentable over the cited art because they depend

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directly or indirectly on independent claims 5, 25, and 45 and dependent claims 8, 28, 48 which are patentable over the cited art for the reasons discussed above.

Dependent Claims 10, 20, 30

Claims 10 depends on claim 5, further comprising:

outputting information on determined program statements and program artifacts affected by each selected program statement.

The Examiner has rejected claim 10 under 35 U.S.C. 102 as being unpatentable over the cited Baldwin. Applicants traverse.

Nowhere does the cited Baldwin (col. 3, lines 63 - col. 4, line 5) discuss outputting information on program statements. Col. 3, lines 63 - col. 4, line 5 of the cited Baldwin is as follows: "The interactive program analysis portion of the present invention performs an on-line function which features user-driven navigation for interactive analysis of the information and relationships produced from and contained within the eight databases created during the batch load portion of the present invention. Through a series of menus, selection screens and user driven on-line reports, the programmer/analyst can easily perform analysis tasks more accurately and in a shorter period of time than that previously attainable with prior art program analysis tools." The cited Baldwin is discussing interactive program analysis, user-driven navigation, and interactive analysis but nowhere does the cited Baldwin teach or disclose the claim requirement of outputting information on determined program statements and program artifacts affected by each selected program statement.

For the above reasons claim 10, and similarly claims 20, and 30 are patentable over the cited art.

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Dependent Claims 11, 21, 31

Claim 11 depends on claim 5, wherein the program artifact comprises a variable, Input/Output buffer or file.

The Examiner has rejected claim 11 under 35 U.S.C. 102 as being unpatentable over the cited Baldwin. Applicants traverse.

The Examiner has mentioned that the cited COBOL procedures of the cited Baldwin col. 14, line 45 - col. 15, lines 13 disclose the claim requirements. Therefore, the Examiner is interpreting the COBOL procedures of the cited Baldwin as the program artifact of the claim requirements. However, in rejecting claim 5 on which claim 11 depends, the COBOL procedures of the cited Baldwin were different from the program artifact of the claim requirements. Should the Examiner maintain the rejection, the Examiner is requested to indicate answers to the following questions for both claims 5 and 11:

- 1) Which element of the cited Baldwin corresponds to the "program artifact" of the claim requirements?
- 2) Which element of the cited Baldwin corresponds to the "program statement" of the claim requirements?
- 3) While elements of the cited Baldwin is the "input" and "output" of the claim requirements?

For the above reasons claim 11, and similarly claims 21, and 31 are patentable over the cited art.

Dependent Claims 12, 22, 32

Claim 12 depends on claim 5, wherein one program statement has one input parameter that is affected by the selected program statement if the output parameter program artifact of the selected program statement is the input parameter program artifact to the program statement.

The Examiner has rejected claim 12 under 35 U.S.C. 102 as being unpatentable over the cited Baldwin. Applicants traverse.

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The cited col. 5, lines 3-8 of the cited Baldwin discusses modules and inputs and outputs of modules and is different from the claim requirement of program statement and input/output parameters of program statements.

For the above reasons claim 12, and similarly claims 22, and 32 are patentable over the cited art.

Dependent Claims 13, 23, 33

Claim 13 depends on claim 12, wherein one statement further has one input parameter that is affected by the selected program statement if the output parameter program artifact of the selected program statement is the input parameter program artifact to the program statement or if the output parameter program artifact of one statement other than the selected program statement has as one input parameter one program artifact affected by the selected program statement.

The Examiner has rejected claim 13 under 35 U.S.C. 102 as being unpatentable over the cited Baldwin. Applicants traverse.

Col. 5, lines 4-23 of the cited Baldwin discusses modules, linkages of modules, etc. The modules are different from program statements of the claim requirements.

Additionally, nowhere does the cited Baldwin teach or disclose the claim requirement that one statement further has one input parameter that is affected by the selected program statement if the output parameter program artifact of the selected program statement is the input parameter program artifact to the program statement or if the output parameter program artifact of one statement other than the selected program statement has as one input parameter one program artifact affected by the selected program statement. The Examiner is requested to identify how the cited col. 5, line 4-23 disclose the claim requirements by pointing of corresponding elements to the claim requirements in the cited sections of the cited Baldwin.

For the above reasons claims 13, 23, 33 are patentable over the cited art.

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Dependent Claims 14, 24, 34

Claim 14 depends on claim 5, wherein if the selected program statement comprises a call to a program routine comprised of a plurality of statements in one of the source code files, then one statement has one input parameter that is affected by the selected program statement if:

the output parameter program artifact of the selected source code statement is the input parameter program artifact to the statement; or

the input parameter of the selected source code statement is the input parameter program artifact to the statement.

The Examiner has rejected claim 14 under 35 U.S.C. 102 as being unpatentable over the cited Baldwin. Applicants traverse.

Col. 14, lines 48-54 of the cited Baldwin discusses a procedure for a COBOL module. Nowhere does the cited Baldwin teach or disclose the claim requirement that the selected program statement comprises a call to a program routine comprised of a plurality of statements in one of the source code files, then one statement has one input parameter that is affected by the selected program statement if:

the output parameter program artifact of the selected source code statement is the input parameter program artifact to the statement; or

the input parameter of the selected source code statement is the input parameter program artifact to the statement.

For the above reasons claims 14, 24, 34 are patentable over the cited art.

Claim 15, 35, 55

Claim 15 depends on claim 5, and further comprises accessing the source code files from a control management system.

The Examiner has rejected claims 15 under 35 U.S.C. 103(a) as being unpatentable over Baldwin in view of Melahn. Applicants traverse.

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The Examiner has combined the teachings of the cited Baldwin with the cited Melahn, where the cited Melahn (col. 1, lines 48-63) discusses control management system and version management. The motivation for combining the teachings of the cited Baldwin and the cited Melahn are that it would facilitate parallel development involving multiple developers.

However parallel development involving multiple developers is an improper reason for combining the cited Melahn and the cited Baldwin. The Examiner has applied the source control as discussed in the cited Melahn to the impact analysis teachings of the cited Baldwin.

The cited Baldwin "is specifically directed to a system and method that provides multi-module relationship information which increases the speed and accuracy of the analysis process required when making a maintenance change or enhancement" (Baldwin: col. 2, lines 9-14). Should the source control as discussed in the cited Melahn be combined to the impact analysis teachings of the cited Baldwin, the additional processing required would decrease the speed of the analysis process when making a maintenance change or enhancement. So while parallel development may be facilitated this would be at the expense of speed which is contrary to the teachings of the cited Baldwin.

For the above reasons, the cited Baldwin and the cited Melahn cannot be combined in the way mentioned by the Examiner.

For the above reasons, claim 15, and similarly claims 35, and 55 are patentable over the combination of the cited Baldwin and the cited Melahn.

Amended dependent Claims 61-87

The requirements of amended dependent claims may be found at least in original claim 9 and in at least on page 9, lines 26-29 (Paragraph 25) of the Application. The cited Baldwin or the cited Melahn do not teach or disclose the claim requirements of recursive determination of program statements, and/or recursive calls, in addition to the other claim requirements included in claims 61-87.

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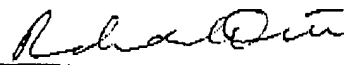
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Conclusion

For all the above reasons, Applicant submits that the pending claims are patentable over the art of record. Applicants have indicated appropriate fees. Nonetheless, should any additional fees be required, please charge Deposit Account No. 09-0460.

The attorney/agent invites the Examiner to contact him at (310) 557-2292 if the Examiner believes such contact would advance the prosecution of the case.

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